

**Gonadotrophin-Releasing Hormone Analogues for Central Precocious Puberty in children  
Shared Care Guideline: Prescribing Agreement**

**Section A: To be completed by the hospital consultant initiating the treatment**

<b>GP Practice Details:</b> Name: ..... Address: ..... Tel no: ..... Fax no: ..... NHS.net e-mail: .....	<b>Patient Details:</b> Name: ..... Address: ..... DOB: ..... Hospital number: ..... NHS number (10 digits): .....
<b>Consultant name:</b> ..... <b>Clinic name:</b> ..... <b>Contact details:</b> Address: ..... Tel no: ..... Fax no: ..... NHS.net e-mail: .....	
<b>Diagnosis:</b> Central precocious puberty in children	<b>Drug name, dose and frequency to be prescribed by GP:</b> <input type="checkbox"/> Triptorelin acetate – Gonapeptyl Depot 3.75mg® <input type="checkbox"/> Triptorelin pamoate– Decapeptyl SR 11.25mg® <input type="checkbox"/> Triptorelin pamoate – Decapeptyl SR 22.5mg® <input type="checkbox"/> Leuprorelin acetate – Prostag® SR DCS 3.75mg <input type="checkbox"/> Leuprorelin acetate – Prostag® 3 DCS 11.25mg

**Next hospital appointment:**

Dear Dr. ....,

Your patient was reviewed on .....; he/she started **(Drug) (Brand: )** mg on ..... for the above diagnosis and in my view, his/her condition is now stable. I am requesting your agreement to sharing the care of this patient from ..... in accordance with the attached Shared Care Prescribing Guideline (approval date .....). Please take particular note of Section 2 where the areas of responsibilities for the consultant, GP and patient for this shared care arrangement are detailed.

Patient information has been given outlining potential aims and side effects of this treatment and .....\* supplied (\* insert any support materials issued such as patient held monitoring book etc where applicable). The patient has given me consent to treatment possibly under a shared care prescribing agreement (with your agreement) and has agreed to comply with instructions and follow up requirements.

The most recent investigations have been performed on ..... and are acceptable for shared care. Please monitor ..... every .....

Test	Baseline	Date	Current	Date
LH (peak)				
FSH (peak)				
Testosterone				
17β oestradiol				
Height				
Weight				
Bone age assessment				

Other relevant information: .....

Consultant Signature: .....Date: .....

**Section B: To be completed by the GP and returned to the hospital consultant as detailed in Section A above [If returned via e-mail, use NHS.net email account ONLY]**

Please sign and return your agreement to shared care within 14 days of receiving this request.

Tick which applies:

I accept sharing care as per shared care prescribing guideline and above instructions

I would like further information. Please contact me on: .....

I am not willing to undertake shared care for this patient for the following reason:  
.....

GP name: .....

GP signature: .....Date: .....

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# SHARED CARE PRESCRIBING GUIDELINE

## Gonadotrophin-Releasing Hormone Analogues for Central Precocious Puberty in children

### NOTES to the GP

The expectation is that these guidelines should provide sufficient information to enable GPs to be confident to take clinical and legal responsibility for prescribing this drug.

The questions below will help you confirm this:

- Is the patient's condition predictable or stable?
- Do you have the relevant knowledge, skills and access to equipment to allow you to monitor treatment as indicated in this shared care prescribing guideline?
- Have you been provided with relevant clinical details including monitoring data?

If you can answer YES to all these questions (after reading this shared care guideline), then it is appropriate for you to accept prescribing responsibility.

If the answer is NO to any of these questions, you should not accept prescribing responsibility. You should write to the consultant within 14 days, outlining your reasons for NOT prescribing. If you do not have the confidence to prescribe, we suggest you discuss this with your local Trust/specialist service, who will be willing to provide training and support. If you still lack the confidence to accept clinical responsibility, you still have the right to decline. Your CCG pharmacist will assist you in making decisions about shared care.

It would not normally be expected that a GP would decline to share prescribing on the basis of cost.

**The patient's best interests are always paramount**

<b>Date prepared:</b> 10 <sup>th</sup> May 2017	<b>Review date:</b> September 2025
<b>Approved by (date approved):</b> SWL Medicines Optimisation Group (27/09/2018) SWL Integrated Medicines Optimisation Committee (21/09/2022) – updated approved	<b>Changes before review date:</b>
NHS Croydon CCG – CPC (07/07/2017) NHS Kingston CCG – MMC (01/06/2017) NHS Merton CCG – MMC (16/03/2018)	NHS Richmond CCG – RGPA (20/10/2017) NHS Sutton CCG – MMC (16/03/2018) NHS Wandsworth CCG – CEMMaG (22/06/2017)

**This shared care prescribing guideline has been signed off by the following individuals on behalf of their respective organisations:**

Participating Clinical Commissioning Groups (CCG)	Participating Hospital Trusts
<b>Croydon CCG</b> Dr Tony Brzezicki, GP Chair CCG Philippa Blatchford, Senior Prescribing Advisor	<b>Croydon Health Services</b> Dr Nazma Chowdhury, Consultant Paediatrician Dr Priya Ramaswamy, Consultant Paediatrician Louise Coughlan, Chief Pharmacist
<b>Kingston CCG</b> Dr Jonathan Edwards, GP MMC Emma Richmond, Interim Chief Pharmacist	<b>Kingston Hospital</b> Dr Charlotte Jackson, Consultant Paediatrician Judith Foy, Chief Pharmacist
<b>Merton CCG</b> Dr Vasa Gnanapragasam, Clinical Director, MM Sedina Agama, Chief Pharmacist	<b>Epsom and St Helier University Hospitals</b> Dr Aileen Alston, Consultant Paediatrician Anne Davies, Chief Pharmacist
<b>Richmond CCG</b> Dr Zehra Rashid, GP MO Lead Emma Richmond, Chief Pharmacist	<b>St Georges' University Hospitals</b> Dr Assunta Albanese, Consultant Paediatrician Vinodh Kumar, Acting Chief Pharmacist
<b>Sutton CCG</b> Dr Roshni Scott, Medicines Optimisation GP Lead Sarah Taylor, Chief Pharmacist	<b>Royal Marsden</b> Dr Assunta Albanese, Consultant Paediatrician Robert Duncombe, Chief Pharmacist
<b>NHS Wandsworth CCG</b> Dr Rod Ewen, Chair CEMMaG Nick Beavon, Chief Pharmacist	

# SHARED CARE PRESCRIBING GUIDELINE

## Gonadotrophin-Releasing Hormone Analogues for Central Precocious Puberty in children

### 1. LICENSING INFORMATION

Indication	Triptorelin			Leuprorelin acetate	
	Gonapeptyl Depot 3.75mg® as acetate	Decapeptyl SR 11.25mg® as pamoate	Decapeptyl SR 22.5mg® as pamoate	Prostap SR DCS 3.75mg	Prostap DSC 3 11.25mg
<p>Treatment of confirmed central precocious puberty.</p> <p>Central precocious puberty is defined as premature activation of the hypothalamic-pituitary-gonadal axis with presence of secondary sexual characteristics in any girl less than 9 years or boy less than 10 years.</p>	<p>Licensed for girls starting before 9 years of age.</p> <p>Boys starting before 10 years of age.</p>	<p>Licensed for girls starting before 8 years of age.</p> <p>Boys starting before 10 years of age.</p>	<p>Licensed for girls starting before 8 years of age.</p> <p>Boys starting before 10 years of age.</p>	<p>Licensed for girls starting before 9 years of age.</p> <p>Boys starting before 10 years of age.</p>	<p>Licensed for girls starting before 9 years of age.</p> <p>Boys starting before 10 years of age.</p>
<b>Place in therapy</b>	Preferred 1st choice			<p>2<sup>nd</sup> choice in case of</p> <ul style="list-style-type: none"> <li>Allergic reaction to Triptorelin</li> <li>Intolerance to Triptorelin due to pain on injection</li> <li>Complex behavioural issues where there could be a delay in administration after preparation of injection [Triptorelin forms a suspension on preparation and should be administered immediately to prevent precipitation.]</li> </ul>	

### 2. CIRCUMSTANCES WHEN SHARED CARE IS APPROPRIATE

- Prescribing responsibility will only be transferred when the consultant and the GP are in agreement that the patient's condition is stable or predictable.
- Patients will only be referred to the GP once the GP has agreed in each individual case and the hospital will continue to provide prescriptions until successful transfer of responsibilities as outlined below.
- The hospital will provide the patient with a minimum initial supply of 4 weeks therapy.

Developed by St George's University Hospitals NHSFT: 2005 (updated August 2022) Review date: 21.09.2025

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Approved by New SWL Integrated Optimisation Committee: 21.09.2022

Participating Providers: Croydon, Epsom & St Helier, Kingston Hospital, Royal Marsden, St Georges'

# SHARED CARE PRESCRIBING GUIDELINE

## 3. AREAS OF RESPONSIBILITY

<b>Consultant</b>
<b>Pre-treatment checks</b> <ul style="list-style-type: none"><li>• Undertake necessary investigations to confirm a diagnosis of central precocious puberty (CPP) that requires treatment with Gonadotrophin-Releasing Hormone Analogues</li><li>• Discuss treatment options with the patient/parent/carer.</li></ul>
<b>Patient education</b> <ul style="list-style-type: none"><li>• Discuss benefits vs risk with the patient/parent/carer.</li><li>• Provide the patient/parent/carer with appropriate patient information leaflets.</li><li>• Explain shared care agreement to patient/parent/carer.</li></ul>
<b>Starting treatment</b> <ul style="list-style-type: none"><li>• To arrange administration of first injection(s) in hospital (For minimum number of injections administered in hospital see individual drug/formulation in 5. CLINICAL INFORMATION)</li><li>• Prescribe full course of anti-androgen therapy when required on initiation of Gonadotrophin-Releasing Hormone Analogues therapy</li></ul>
<b>Continuation of treatment</b> <ul style="list-style-type: none"><li>• Liaise with GP seeking shared care for the patient after 4 weeks therapy. Treatment in hospital should continue until shared care has been formally agreed.</li><li>• Provide GP with written information regarding diagnosis and indication for Gonadotrophin-Releasing Hormone Analogues therapy along with dosage, preparation used and frequency of injections.</li><li>• Provide health professionals administering Gonadotrophin-Releasing Hormone Analogues with appropriate training and information leaflets.</li><li>• Dose adjustments may be required intermittently and should be based on continuing pubertal changes and hormone levels (LH, FSH, testosterone/17<math>\beta</math> oestradiol).</li><li>• Monitor patient's growth, pubertal development, assessment of any other ongoing or evolving endocrinopathy and general condition at 3-6monthly intervals following initiation of treatment.</li><li>• Communicate updates with the GP following every clinic visit and advice about change in dose, preparation or frequency of injections.</li></ul>
<b>Cessation of treatment</b> <ul style="list-style-type: none"><li>• Supervise the timing of cessation of therapy based on patient's gender, age and other medical problems.</li></ul>
<b>GP</b>
<ul style="list-style-type: none"><li>• Reply to the request for shared care within 14 days.</li><li>• Prescribe Gonadotrophin-Releasing Hormone Analogues as advised by the supervising consultant.</li><li>• Facilitate the administration of subsequent injections in primary care in cooperation with the Endocrine Nurse Specialist (Community Paediatric Team, GP practice or Children's Hospital at Home team). Ensure that healthcare professionals administering Gonadotrophin-Releasing Hormone Analogues have access to adequate support and/or training from Endocrine Nurse Specialist.</li><li>• Monitor the patient's general health and well-being as part of GP practice</li><li>• Report any adverse effects of therapy to the supervising consultant.</li></ul>
<b>Administration of injection</b> <ul style="list-style-type: none"><li>• Check dose with another healthcare professional (GP, nurse, pharmacist) before administration</li></ul>
<b>Patient</b>
<ul style="list-style-type: none"><li>• Ensure clear understanding of the prescribed treatment.</li><li>• Ensure that injections are administered as per the recommended time interval. Please notify the supervising consultant and/or GP if the injection is delayed for any reason.</li><li>• Share any concerns in relation to treatment with the supervising consultant and/or GP whilst on treatment.</li><li>• Report any adverse effects to the supervising consultant and/or GP whilst on treatment.</li><li>• Attend follow-up appointments with the GP/consultant including any scheduled blood tests</li><li>• Inform GP/consultant of any changes in relation to their therapy e.g. side effects and introduction of new medicines or difficulties in administration.</li></ul>

# SHARED CARE PRESCRIBING GUIDELINE

## 4. COMMUNICATION AND SUPPORT

Hospital contacts: (the referral letter will indicate named consultant)	Out of hours contacts & procedures:
<p><b>St George's University Hospitals NHS Foundation Trust (SGH)</b>  <b>The Royal Marsden Hospital (RMH)</b>            Dr. Assunta Albanese (Consultant Paediatrician)</p> <p>Tel: 020 8725 0275 (SGH) or            020 8661 3329 (RMH) Tuesday and Wednesday            Fax: 020 8725 3741 (SGH)            E-mail: a.albanese@nhs.net</p>	<p>Dr Albanese (Consultant Paediatric Endocrinologist):            page via St George's Hospital switchboard            Tel: 020 8672 1255</p> <p>On-call pharmacist via:            Tel: 020 86721255 (SGH)            020 5642 6011 (RMH)</p>
<p><b>Epsom and St Helier University Hospitals NHS Trust</b>            Dr. Aileen Alston (Consultant Paediatrician)            Tel: 020 8296 3021            Fax: 020 8644 6878            E-mail: aileen.alston@nhs.net</p> <p>Malar Sutharhan (Paediatric endocrine nurse specialist)            Tel: 020 8296 3076            E-mail: malar.sutharhan@nhs.net</p> <p>Nashreen Maudarbacus (Paediatric pharmacist)            Tel: 020 8296 2409 (bleep 609)            E-mail: Nashreen.maudarbacus@nhs.net</p>	<p>On-call general paediatric specialist registrar via Epsom and St Helier switchboard            Tel: 020 8296 2000</p> <p>On-call pharmacist via Epsom and St Helier switchboard            Tel: 020 8296 2000</p>
<p><b>Croydon Health Services NHS Trust</b>            Dr Nazma Chowdhury (Consultant Paediatrician)            02084013000 ext. 5993            Email: nazmachowdhury@nhs.net</p> <p>Dr Priya Ramaswamy (Consultant Paediatrician)            02084013000 ext. 5374            E-mail: p.ramaswamy@nhs.net</p> <p>Li Feng (Specialist pharmacist – Women &amp; Children)            Tel: 0208 401 5950            E-mail: feng.li1@nhs.net</p>	<p>On call Paediatric specialist registrar via Croydon University Hospital switchboard.            Tel: 0208 401 3000</p> <p>On-call pharmacist via Croydon University Hospital switchboard            Tel: 0208 401 3000</p>
<p><b>Kingston Hospital NHS Foundation Trust</b>            Dr. Charlotte Jackson (Consultant Paediatrician)            Tel: 020 934 2410</p> <p>Senior Pharmacist Paediatrics and Women's Health            Elsa Ng            Tel: 0208 934 2091 bleep 293</p>	<p>On-call paediatric registrar is contactable on 020 8546 7711 bleep 732</p>

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# SHARED CARE PRESCRIBING GUIDELINE

## Specialist support/resources available to GP including patient information:

Additional information is available for healthcare professionals from Medicines Information Departments

St George's Healthcare NHS Trust Tel: 020 8725 1759

The Royal Marsden NHS Foundation Trust Tel: 020 8770 3821

Epsom and St Helier University Hospitals NHS Trust Tel: 01372 735251

Croydon Health Services NHS Trust Tel: 0208 401 3059

Kingston Hospital NHS Foundation Trust Tel: 0208 934 2092

British Society for Paediatric Endocrinology and Diabetes <https://www.bsped.org.uk/>

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# SHARED CARE PRESCRIBING GUIDELINE

## 5. CLINICAL INFORMATION

**NOTE:** The information here is not exhaustive. Please also consult the current Summary of Product Characteristics (SPC) for the respective drug prior to prescribing for up to date prescribing information, including detailed information on adverse effects, drug interactions, cautions and contraindications (available via [www.medicines.org.uk](http://www.medicines.org.uk)).

Leuprorelin acetate (Prostap SR DCS® 3.75mg and Prostap 3 DCS® 11.25mg)													
Route, Dose, Duration	Monitoring Undertaken by Specialist before requesting shared care	Ongoing monitoring to be undertaken by GP	Stopping Criteria	Monitoring following dose changes	Follow Up								
<p><b>Prostap SR DCS® 3.75mg</b>  <b>Initiation</b> (by hospital):                      At least 2 doses will be given in hospital on days 0, and 28 days. (Local practice may vary)</p> <p><b>Maintenance</b> (under shared care arrangement):                      Single subcutaneous (e.g into skin of abdomen, buttock or thigh) or deep intramuscular injection <b>every 4 weeks</b> at a dose as instructed by the hospital.</p> <table border="0"> <tr> <td>&lt; 20kg</td> <td>1.88mg (0.5ml)</td> </tr> <tr> <td>≥ 20kg</td> <td>3.75mg (1ml)</td> </tr> </table> <p><b>Prostap 3 DCS® 11.25mg</b>  <b>Initiation</b> (by hospital): 1 dose on day 0  <b>Maintenance</b> (under shared care arrangement)                      Single subcutaneous (e.g into skin of abdomen, buttock or thigh) or deep intramuscular injection <b>every 12 weeks</b> at a dose as instructed by the hospital.</p> <table border="0"> <tr> <td>&lt; 20kg</td> <td>5.625mg (0.5ml)</td> </tr> <tr> <td>≥ 20kg</td> <td>11.25mg (1ml)</td> </tr> </table> <p><b>Rotate injection site to prevent atrophy and nodule formation.</b>  <b>Duration:</b> Treatment should be stopped at the point when bone maturation of older than 12 years in girls and older than 13-14 years in boys has been achieved. This will be assessed by the consultant paediatrician and is generally when the child is mature enough and ready for puberty to develop as measured by psychological and growth assessment. This will vary with each child, but will tend to be around 11 years of age. Patient/parent/carer and endocrinologist will make the decision jointly.</p>	< 20kg	1.88mg (0.5ml)	≥ 20kg	3.75mg (1ml)	< 20kg	5.625mg (0.5ml)	≥ 20kg	11.25mg (1ml)	<p>In the initial stages of therapy (after first injection), a transient rise in levels of gonadotrophins and hence sex hormones may occur. This is due to an initial stimulation of the GnRH receptors before they are blocked. In females with advanced precocious puberty vaginal bleeding may occur (patients/parents/carers are warned of this). Such patients can be treated with an anti-androgen drug such as Cyproterone starting 3 days before and continuing for 2 weeks after commencement of GnRH analogue therapy. This has been reported to prevent the sequelae of an initial rise in sex steroids but is not necessary in every patient.</p> <p>The paediatrician will prescribe the full course of the anti-androgen therapy when the decision to initiate Triptorelin acetate therapy is made. GPs will not be required to prescribe this.</p>	<p>To increase monitoring frequency for blood glucose in diabetic patients as required as development or aggravation of diabetes may occur.</p> <p>To monitor the patient's overall health and well being</p> <p>To report any adverse effects of therapy to the referring consultant.</p>	<p>Stop if hypersensitivity reactions and anaphylaxis and refer to specialist</p>	<p>Nil</p>	<p><b>Specialist</b>                      Monitoring will be undertaken by the Paediatric Endocrinologist including:</p> <ul style="list-style-type: none"> <li>• 4-6 monthly height, weight and pubertal staging</li> <li>• Yearly bone age assessment</li> </ul> <p><i>If hormone measurements are routinely indicated, prescribing under share care is not appropriate and the responsibility for prescribing and administration should remain under specialist supervision.</i></p> <p><b>GP</b>                      Request patient seen earlier if unexpected change of course of disease or adverse events experienced between appointments.</p>
< 20kg	1.88mg (0.5ml)												
≥ 20kg	3.75mg (1ml)												
< 20kg	5.625mg (0.5ml)												
≥ 20kg	11.25mg (1ml)												

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 Participating Providers: Croydon, Epsom & St Helier, Kingston Hospital, Royal Marsden, St Georges'



# SHARED CARE PRESCRIBING GUIDELINE

Practical issues including adverse effects, interactions, other relevant advice and information (refer to SPC and/or BNF for full list):		
<p><b>1. Frequency of administration</b> - It is important to ensure that the injections are given within the recommended time interval and any delay should be avoided. Pubertal suppression action of GnRH agonists may be lost if injections are unduly delayed and increases the incidence of adverse effects.</p> <ul style="list-style-type: none"> <li>• <b>Prostap SR DCS® 3.75mg</b> - Administration interval should be 30 ± 2 days</li> <li>• <b>Prostap 3 DCS® 11.25mg</b> – Administration interval should be 90 ± 2 days</li> </ul> <p><b>2. Storage</b> – Do not store above 25°C (Room temperature)</p> <p><b>3. Reconstitution</b> – Since successful treatment depends upon correct preparation of the suspension, it is important that the injection be performed strictly in accordance with the instructions in the Summary of Product Characteristics.</p>		
Summary of adverse effects: (See summary of product characteristics (SPC) for full list)		
	Very common: ≥ 1/10	Common: ≥1/100, <1/10
		Uncommon: ≥1/1000, <1/100
		Rare: ≥1/10,000, 1/1000
Adverse event	Frequency	Management by GP
Local site reactions – bruising and rashes	Common	Change injection side periodically.
Headache, abdominal pain, cramps, nausea and vomiting.	Common	Refer to consultant if severe/intolerable.
Acne	Common	Refer to consultant if severe/intolerable
Vaginal discharge Vaginal haemorrhage	Common	Refer to consultant if severe/intolerable.
Hypersensitivity reaction; fever, rash, anaphylactic reactions	Very rare	Refer to consultant if severe/intolerable.
Clinically significant drug interactions (refer to BNF for full list)		
<ul style="list-style-type: none"> <li>• <b>Medicinal products which raise prolactin levels</b> should not be prescribed concomitantly as they reduce the level of GnRH receptors in the pituitary. Examples include dopamine antagonists (neuroleptics such as haloperidol, olanzapine, risperidone as well as antiemetics like metoclopramide, domperidone) and drugs which increase serotonin levels (antidepressants such as tricyclics, SNRIs, MAOIs). The list is not exhaustive. Referral to consultant advisable.</li> <li>• No interaction studies have been performed.</li> </ul>		

# SHARED CARE PRESCRIBING GUIDELINE

<b>Triptorelin acetate (Gonapeptyl Depot 3.75mg<sup>®</sup> and Decapeptyl SR 11.25mg<sup>®</sup>)</b>											
Route, Dose, Duration	Monitoring Undertaken by Specialist before requesting shared care	Ongoing monitoring to be undertaken by GP	Stopping Criteria	Monitoring following dose changes	Follow Up						
<p><b><u>Gonapeptyl Depot 3.75mg<sup>®</sup></u></b>  <b>Initiation</b> (by hospital):                      At least 3 doses will be given in hospital on days 0, 14 and 28 days. (Local practice may vary)</p> <p><b>Maintenance</b> (under shared care arrangement):                      Single subcutaneous (e.g into skin of abdomen, buttock or thigh) or deep intramuscular injection <b>every 28 days</b> at a dose as instructed by the hospital according to child's weight.</p> <table style="margin-left: 20px; border: none;"> <tr> <td style="padding-right: 20px;">&lt; 20kg</td> <td>1.875 mg (half syringe)</td> </tr> <tr> <td>20-30kg</td> <td>2.5 mg (2/3 syringe)</td> </tr> <tr> <td>&gt;30kg</td> <td>3.75 mg (full syringe)</td> </tr> </table> <p>Should the effect be insufficient, the injection may be given every 3 weeks.  <b>The injection site should be changed each time.</b></p> <p><b><u>Decapeptyl SR 11.25mg<sup>®</sup></u></b>  <b>Initiation</b> (by hospital): 1 dose on day 0</p> <p><b>Maintenance</b> (under shared care arrangement)                      Single intramuscular injection <b>every 3 months</b> at the standard dose of 11.25mg</p> <p><b><u>Decapeptyl SR 22.5mg<sup>®</sup></u></b>  <b>Initiation</b> (by hospital): 1 dose on day 0</p> <p><b>Maintenance</b> (under shared care arrangement)                      Single intramuscular injection <b>every 6 months</b> (24 weeks) at the standard dose of 22.5mg</p> <p><b>Duration:</b>                      Treatment should be stopped at the point when bone maturation of older than 12 years in girls and older than 13-14 years in boys has been achieved.</p>	< 20kg	1.875 mg (half syringe)	20-30kg	2.5 mg (2/3 syringe)	>30kg	3.75 mg (full syringe)	<p>In the initial stages of therapy (after first injection), a transient rise in levels of gonadotrophins and hence sex hormones may occur.</p> <p>This is due to an initial stimulation of the GnRH receptors before they are blocked. In females with advanced precocious puberty vaginal bleeding may occur (patients/parents/carers are warned of this).</p> <p>Such patients can be treated with an anti-androgen drug such as Cyproterone starting 3 days before and continuing for 2 weeks after commencement of GnRH analogue therapy. This has been reported to prevent the sequelae of an initial rise in sex steroids but is not necessary in every patient.</p> <p>The paediatrician will prescribe the full course of the anti-androgen therapy when the decision to initiate Triptorelin acetate therapy is made. GPs will not be required to prescribe this.</p>	<p>To monitor the patient's overall health and well being</p> <p>To report any adverse effects of therapy to the referring consultant.</p>	<p>Stop if hypersensitivity reactions and anaphylaxis and refer to specialist</p>	<p>Nil</p>	<p><b>Specialist</b>                      Monitoring will be undertaken by the Paediatric Endocrinologist including:</p> <ul style="list-style-type: none"> <li>• 4-6 monthly height, weight and pubertal staging</li> <li>• Yearly bone age assessment</li> </ul> <p>If hormone measurements are routinely indicated, prescribing under share care is not appropriate and the responsibility for prescribing and administration should remain under specialist supervision.</p> <p><b>GP</b>                      Request patient seen earlier if unexpected change of course of disease or adverse events experienced between appointments.</p>
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<p>This will be assessed by the consultant paediatrician and is generally when the child is mature enough and ready for puberty to develop as measured by psychological and growth assessment. This will vary with each child, but will tend to be around 11 years of age. Patient/parent/carer and endocrinologist will make the decision jointly.</p>				
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**Practical issues including adverse effects, interactions, other relevant advice and information (refer to SPC and/or BNF for full list):**

- 1. Frequency of administration** - It is important to ensure that the injections are given within the recommended time interval and any delay should be avoided. Pubertal suppression action of GnRH agonists may be lost if injections are unduly delayed and increases the incidence of adverse effects. The injection can be brought forward for a few days if required.
- 2. Storage** – Gonapeptyl Depot 3.75mg® - Store at 2-8°C (in a refrigerator).    Decapeptyl SR 11.25mg® and Decapeptyl 22.5mg® - Do not store above 25°C (Room temperature)
- 3. Reconstitution** – Since successful treatment depends upon correct preparation of the suspension, it is important that the injection be performed strictly in accordance with the instructions in the Summary of Product Characteristics. The suspension for injection must be reconstituted using an aseptic technique and only using the ampoule of solvent for injection. The suspension has to be injected immediately. For single use only. Any unused suspension should be discarded.

**Summary of adverse effects:**  
*(See summary of product characteristics (SPC) for full list)*      **Very common: ≥ 1/10      Common: ≥1/100, <1/10)      Uncommon: ≥1/1000, <1/100      Rare: ≥1/10,000, <1/1000**

Adverse event	Frequency	Management by GP
Local site reactions – bruising and rashes	Common	Change injection side periodically.
Hypersensitivity reaction	Common	Stop injections and refer to consultant.
Anaphylaxis	Uncommon	Stop injections and refer to consultant.
Nausea and vomiting Peripheral oedema	Uncommon	Symptomatic management. Refer to consultant if severe.
Vaginal discharge Vaginal haemorrhage	Very common	Refer to consultant if severe/intolerable.
Arthralgia, headache, malaise, hot flashes, abdominal pain, acne,	Common	Refer to consultant if severe/intolerable.

**Clinically significant drug interactions (refer to BNF for full list)**

- **Medicinal products which raise prolactin levels** should not be prescribed concomitantly as they reduce the level of GnRH receptors in the pituitary. Examples include dopamine antagonists (neuroleptics such as haloperidol, olanzapine, risperidone as well as antiemetic’s like metoclopramide, domperidone) and drugs which increase serotonin levels (antidepressants such as tricyclics, SNRIs, MAOIs). The list is not exhaustive. Referral to consultant advisable.
- No formal drug-drug interaction studies have been performed. The possibility of interactions with commonly used medicinal products, including histamine liberating products, cannot be excluded.

# SHARED CARE PRESCRIBING GUIDELINE

## REFERENCES

<b>Key references:</b>	<ol style="list-style-type: none"> <li>Summary of Product Characteristics for individual drugs: (accessed 28/01/2021). <a href="http://www.medicines.org.uk">www.medicines.org.uk</a></li> <li>Shared care guidelines: Use of Gonadotrophin Releasing Hormone (GnRH_Agonists – Triptorelin. BSPED (July 2015). <a href="https://www.bsped.org.uk/">https://www.bsped.org.uk/</a> (accessed 11.05.17).</li> <li>Carel et al. Paediatrics 2009; 123:e752-762. Consensus Statement on the Use of Gonadotrophin Releasing Hormone Analogs in Children. (accessed 11.05.17). <a href="http://pediatrics.aappublications.org/content/pediatrics/123/4/e752.full.pdf">http://pediatrics.aappublications.org/content/pediatrics/123/4/e752.full.pdf</a></li> <li>Martin J (ed). <i>British National Formulary on Medicines Complete</i> [online] London: Pharmaceutical Press <a href="http://www.bnf.org">www.bnf.org</a> (accessed 11/04/17)</li> <li>Sweetman SC (ed). <i>Martindale: The Complete Drug Reference</i>. [online] London: Pharmaceutical Press. <a href="http://www.medicinescomplete.com">www.medicinescomplete.com</a> (accessed 16/06/14)</li> <li>Baxter K (ed). <i>Stockley's Drug Interactions</i>. [online] London: Pharmaceutical Press. <a href="http://www.medicinescomplete.com">www.medicinescomplete.com</a> (accessed 11/05/17)</li> <li>Taylor D et al. <i>The Maudsley Prescribing Guidelines in Psychiatry</i>. 11<sup>th</sup> Edition. Wiley-Blackwell; 2012</li> <li>P Hindmarsh <a href="http://www.childgrowthfoundation.org">childgrowthfoundation.org</a> Gonadotrophin releasing hormones analogues usage in the management of precocious puberty. - (2003) (accessed 11.05.17). <a href="http://www.childgrowthfoundation.org/CMS/FILES/Gonadatrophin_Hormone_treatment.pdf">http://www.childgrowthfoundation.org/CMS/FILES/Gonadatrophin_Hormone_treatment.pdf</a></li> </ol>		
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	v1.1	March 2015	Decapeptyl SR 11.25mg added
	v2	May 2017	Leuprorelin 3.75mg and 11.25mg added
	v2.1	July 2022	Leuprorelin 22.5mg added Contact details for participating Trusts updated Salt of Decapeptyl SR injections amended to pamoate Footer amended, participating CCGs now NHS SWL